

FIG. 1

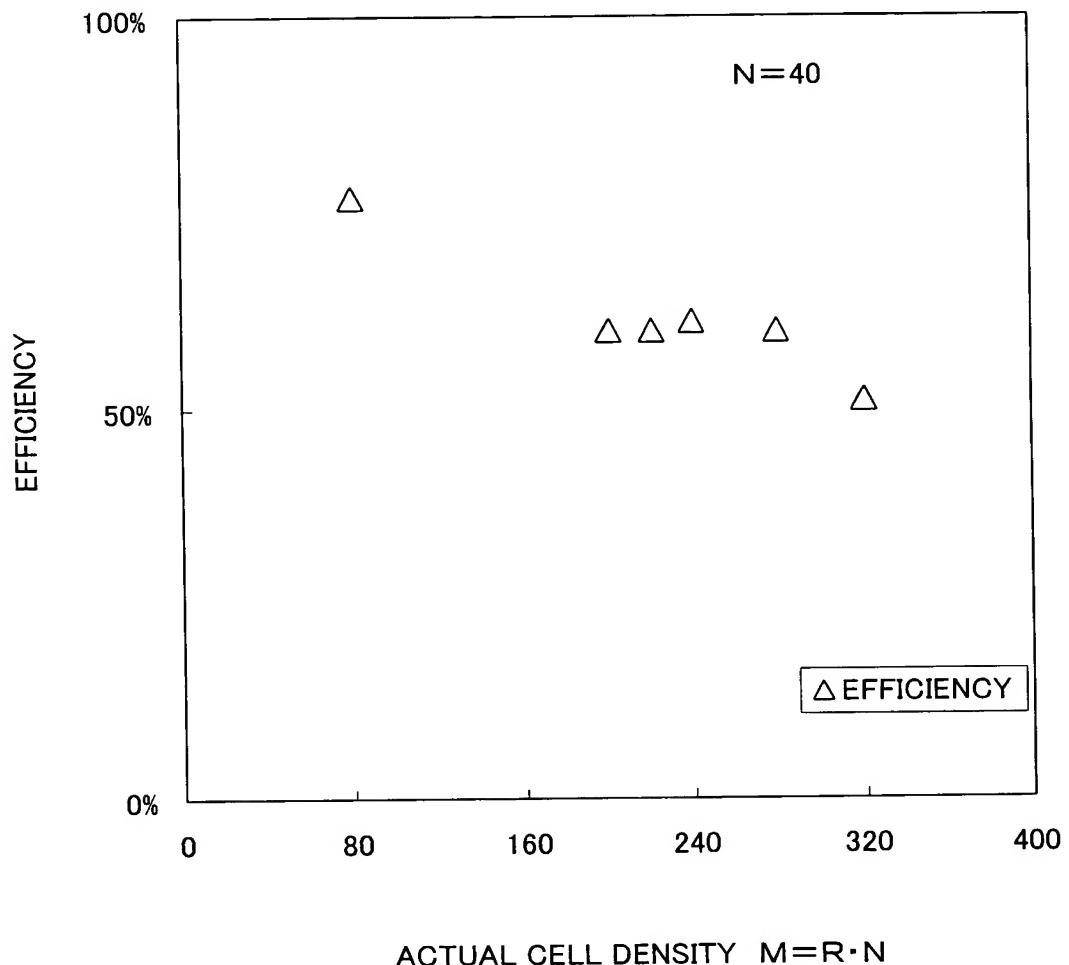


FIG. 2

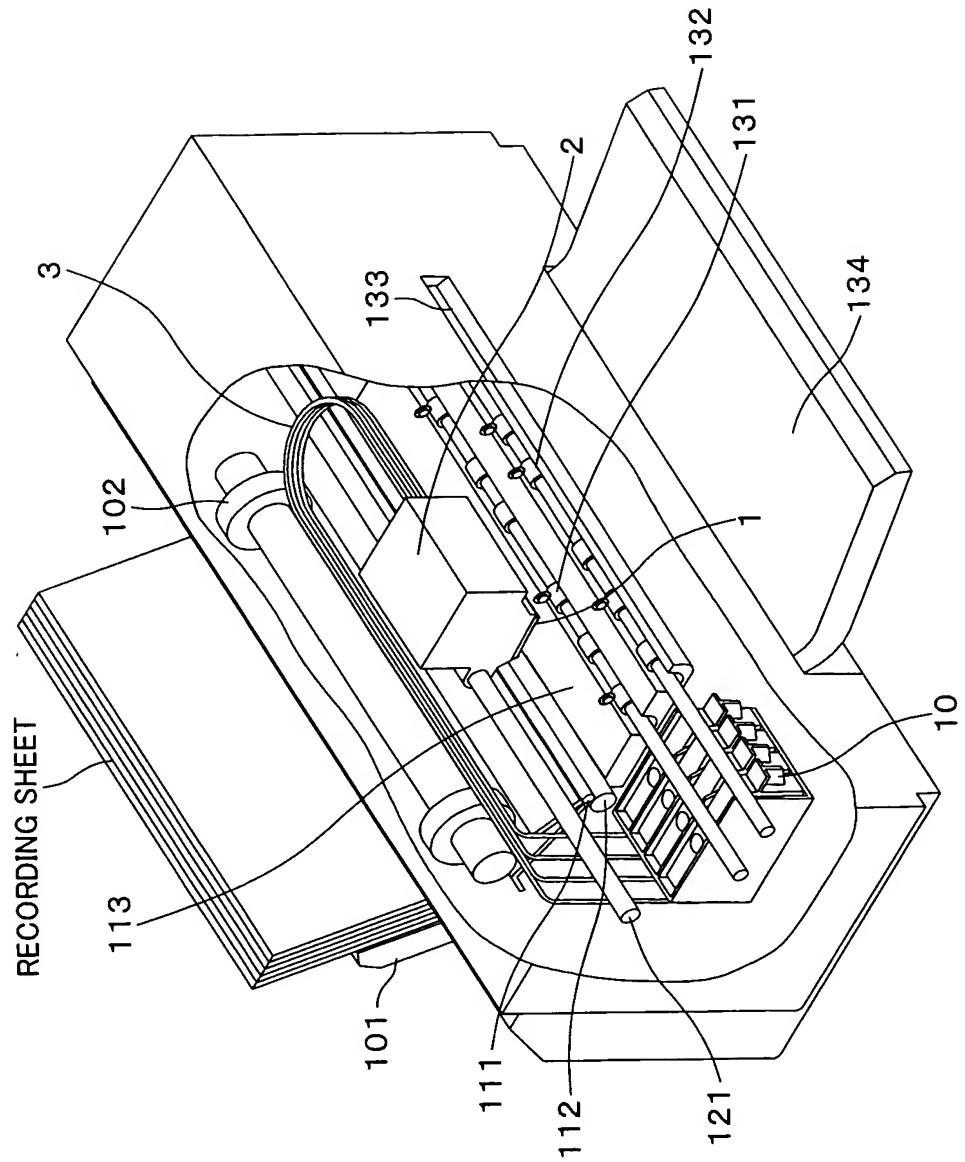


FIG. 3

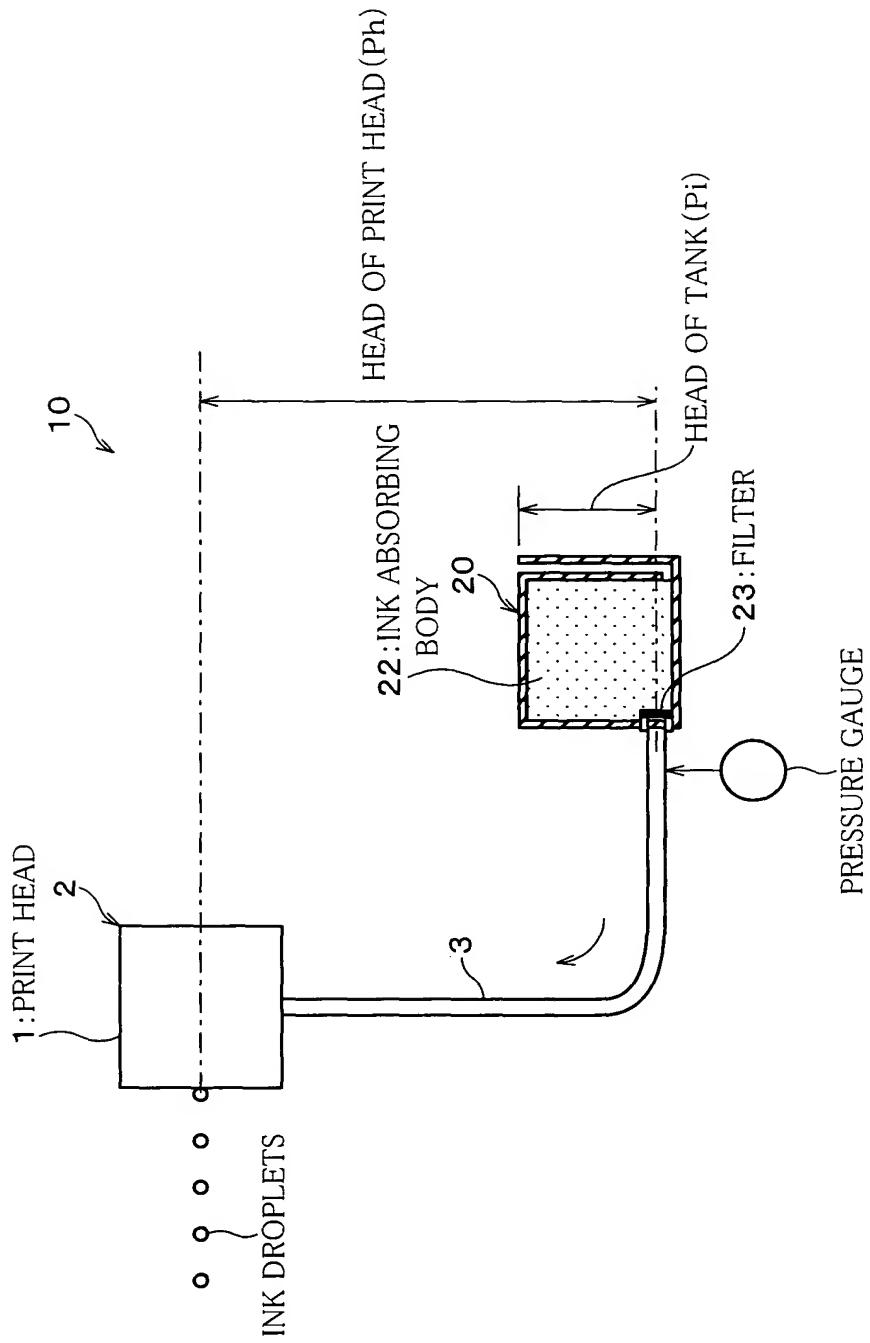


FIG. 4 (a)

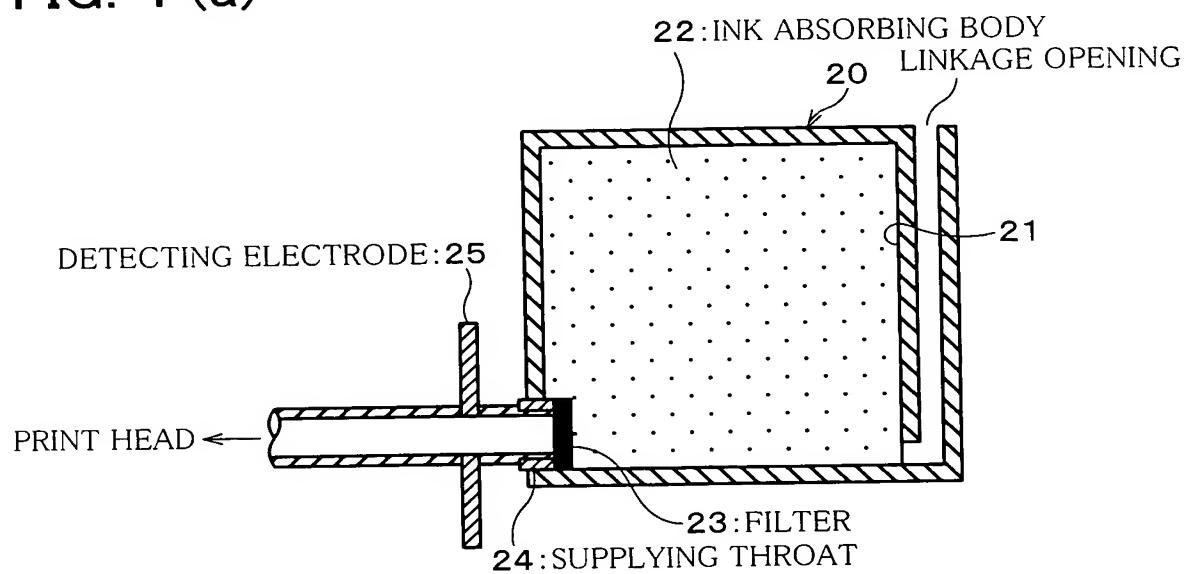


FIG. 4 (b)

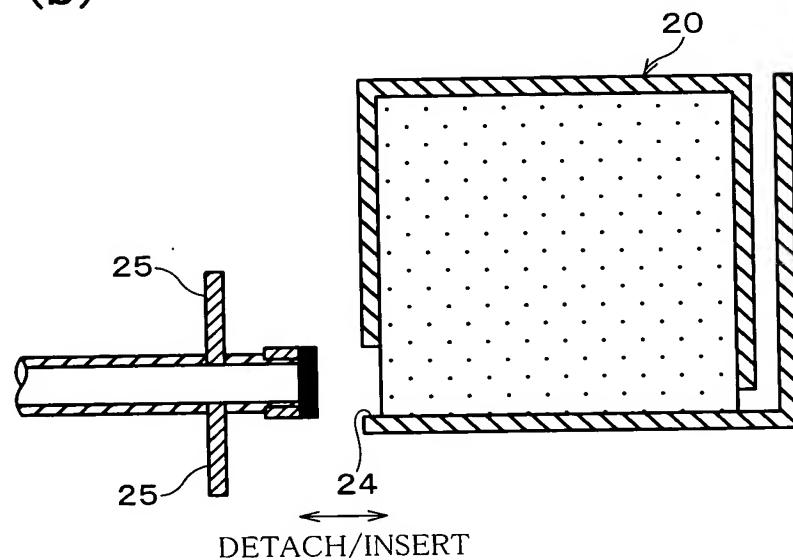


FIG. 4 (c)

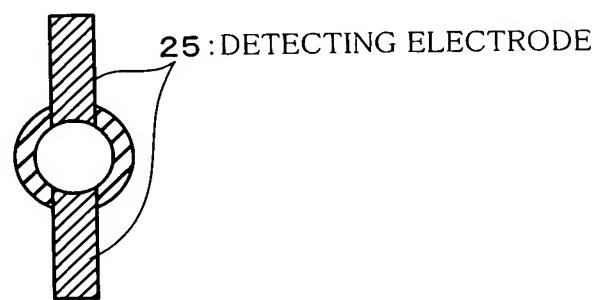


FIG. 5

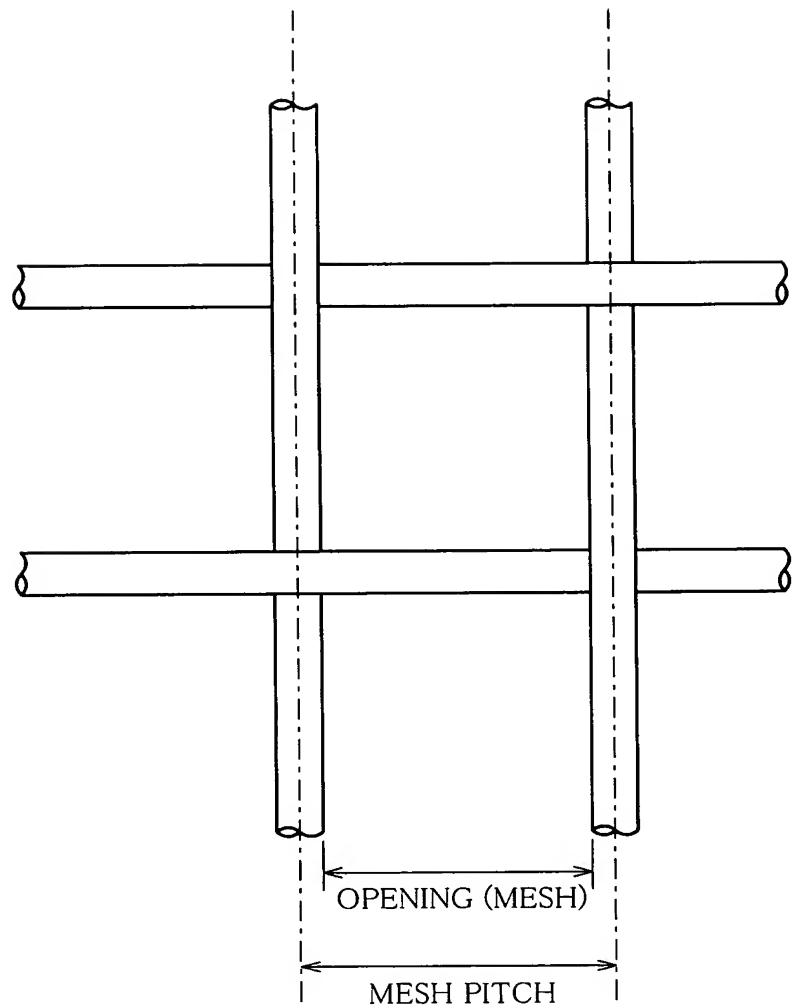


FIG. 6

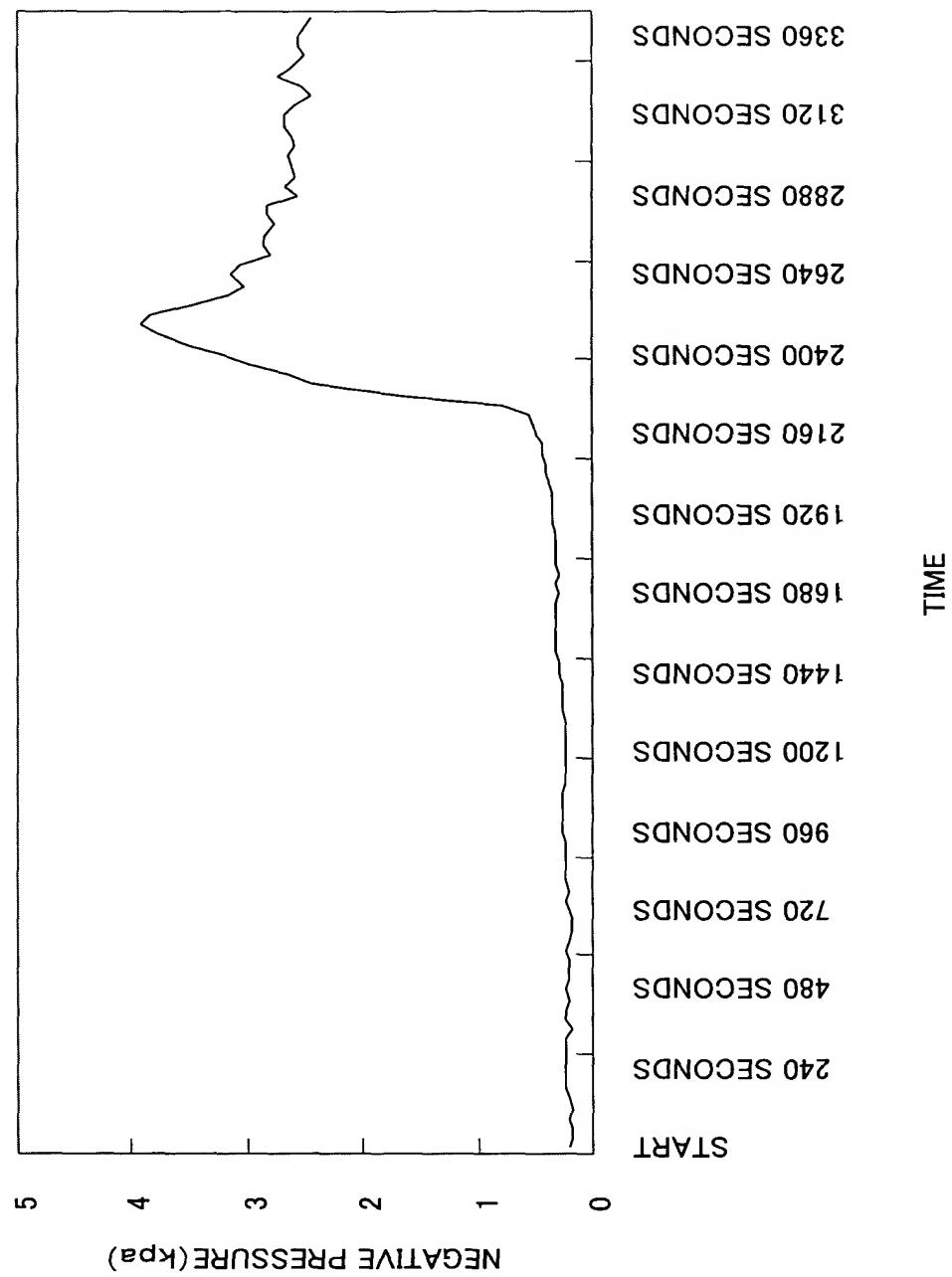
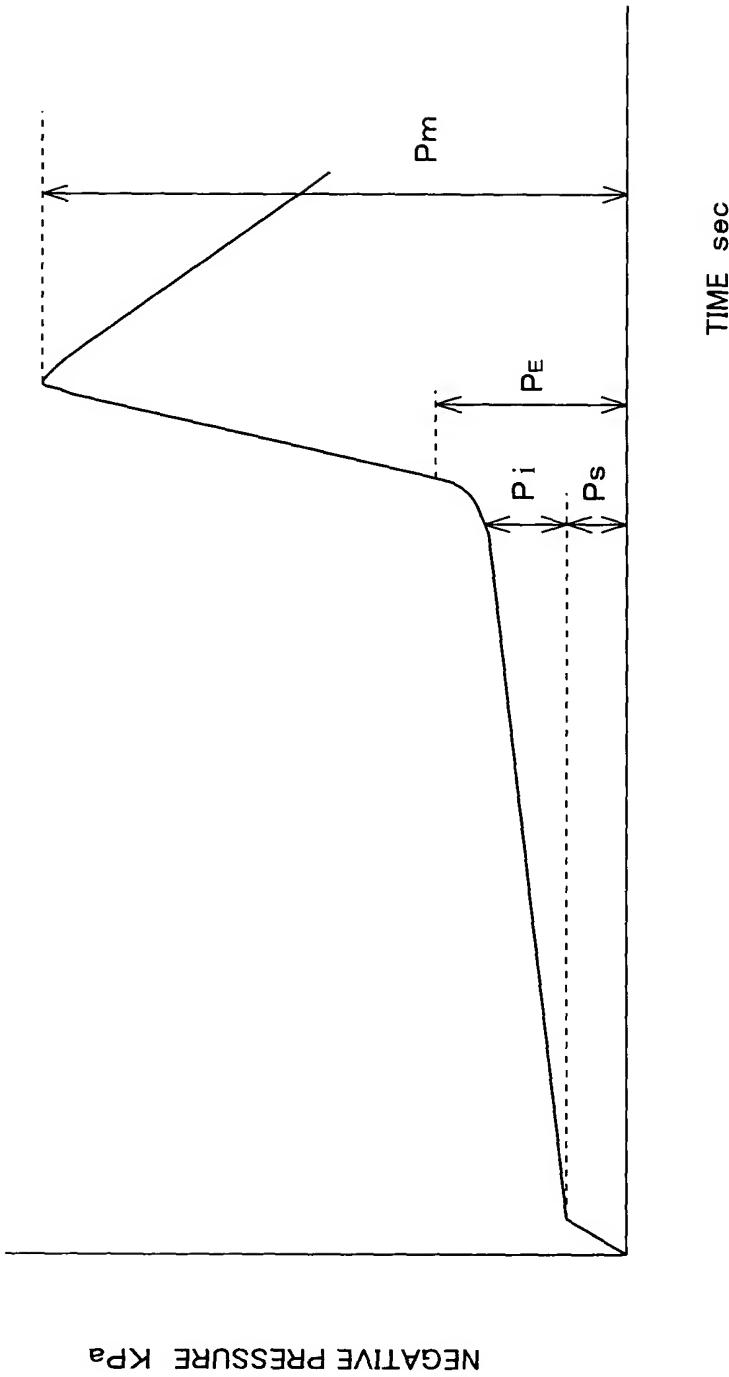


FIG. 7



P_s : NEGATIVE PRESSURE DUE TO VISCOSITY WHEN INK CARTRIDGE IS FULLY CHARGED WITH INK

P_i : INK TANK HEAD PRESSURE

P_E : CRITICAL PRESSURE DUE TO ABSORBING BODY WHEN INK CARTRIDGE IS EMPTY

P_m : CRITICAL PRESSURE DUE TO FILTER

FIG. 8

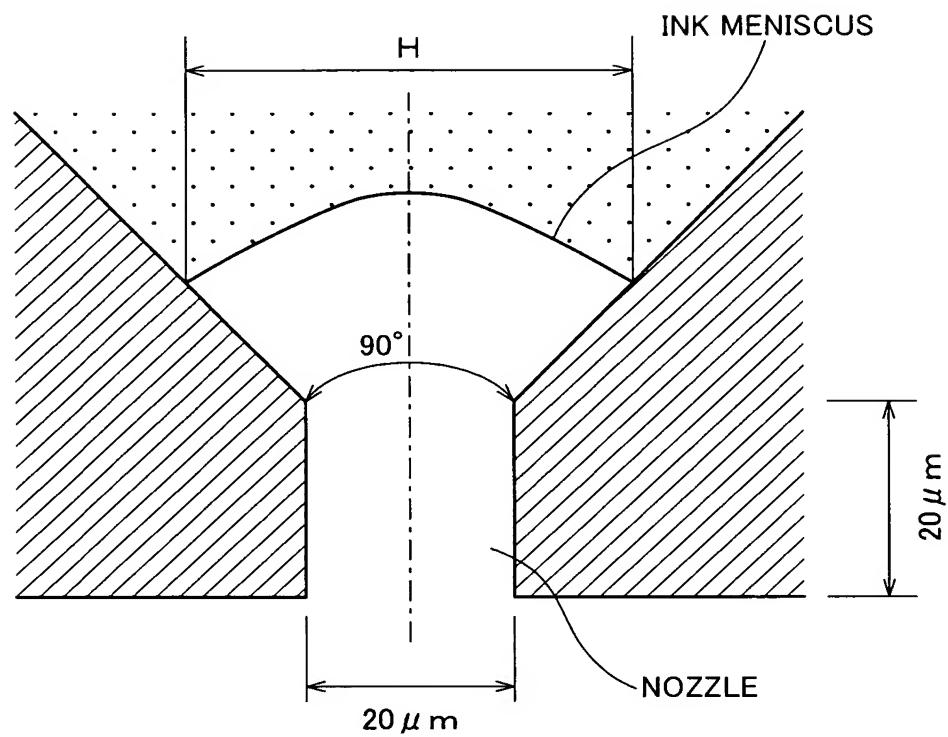


FIG. 9

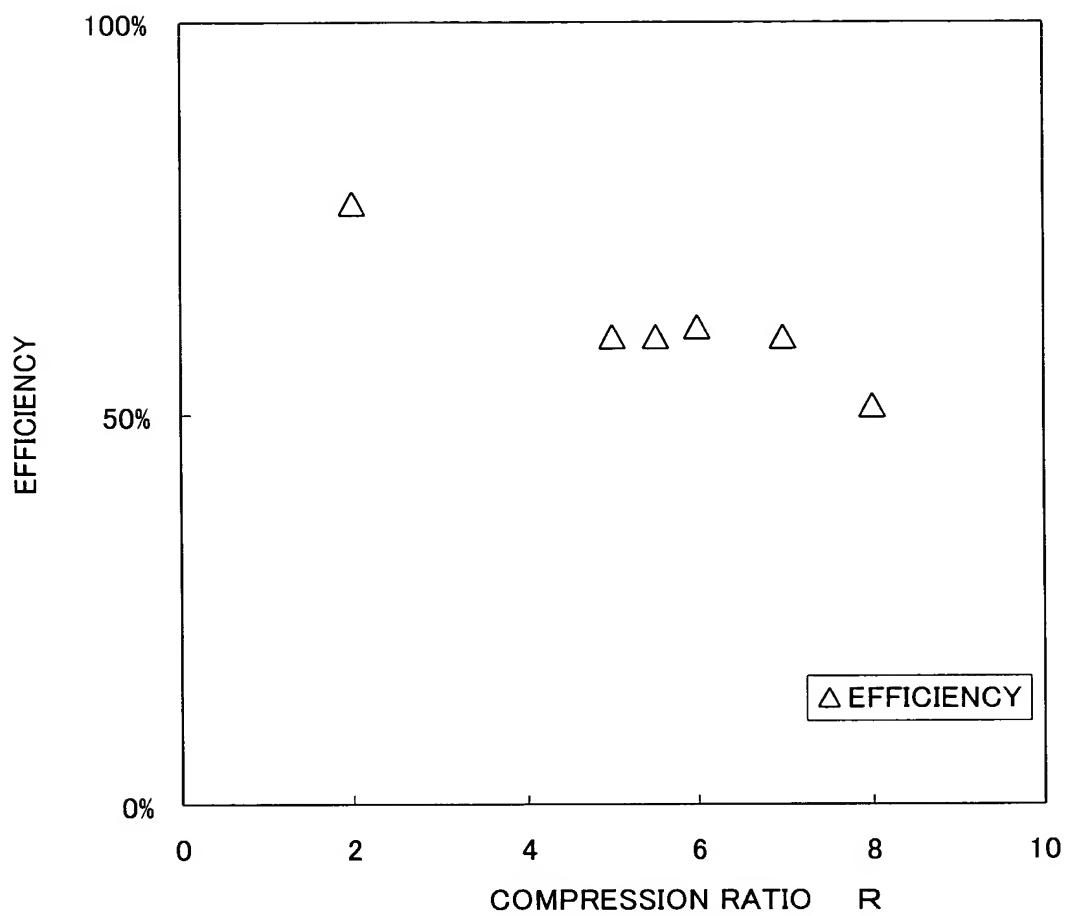


FIG. 10

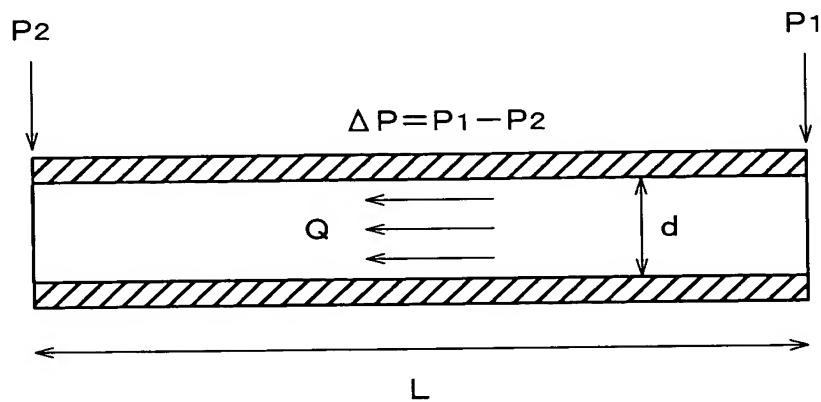


FIG. 11

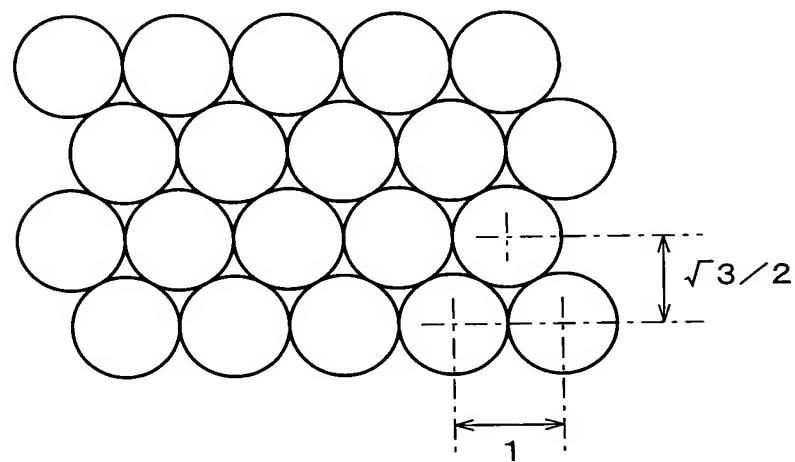


FIG. 12

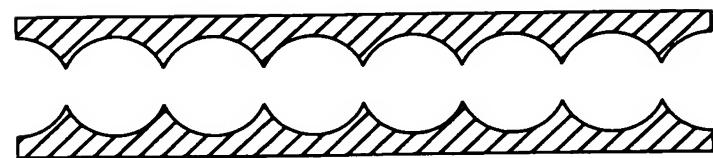
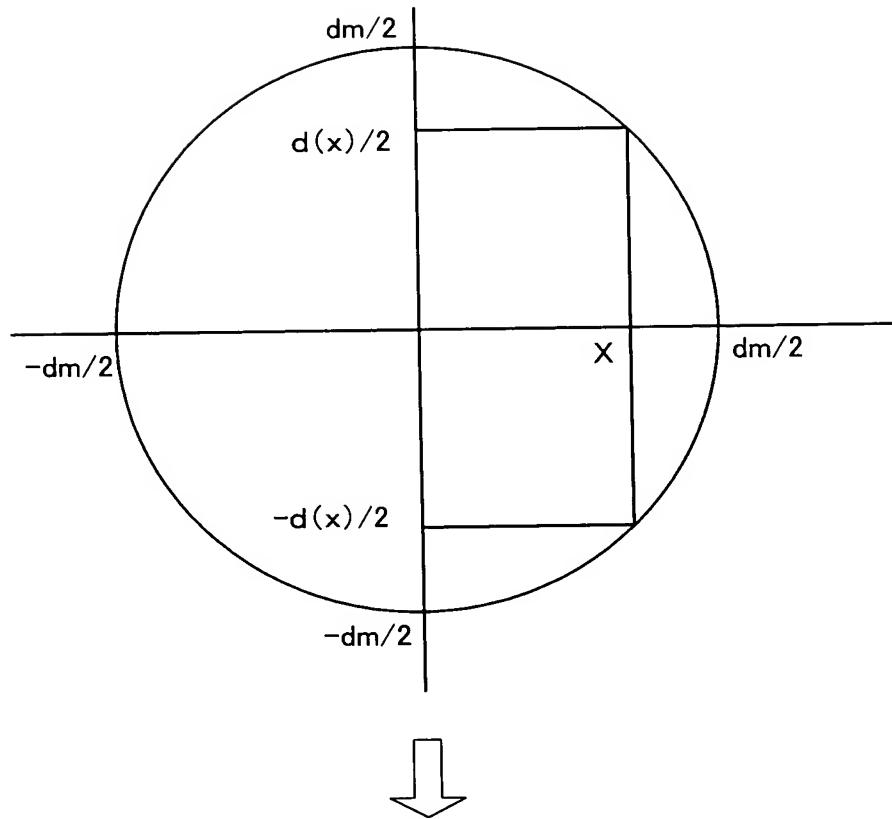


FIG. 13



$$R_d = \int_0^x \frac{1}{\{2\sqrt{(dm/2)^2 - X^2}\}^4} dX$$

$$R_m = \int_0^x \frac{1}{dm^4} dX$$

FIG. 14

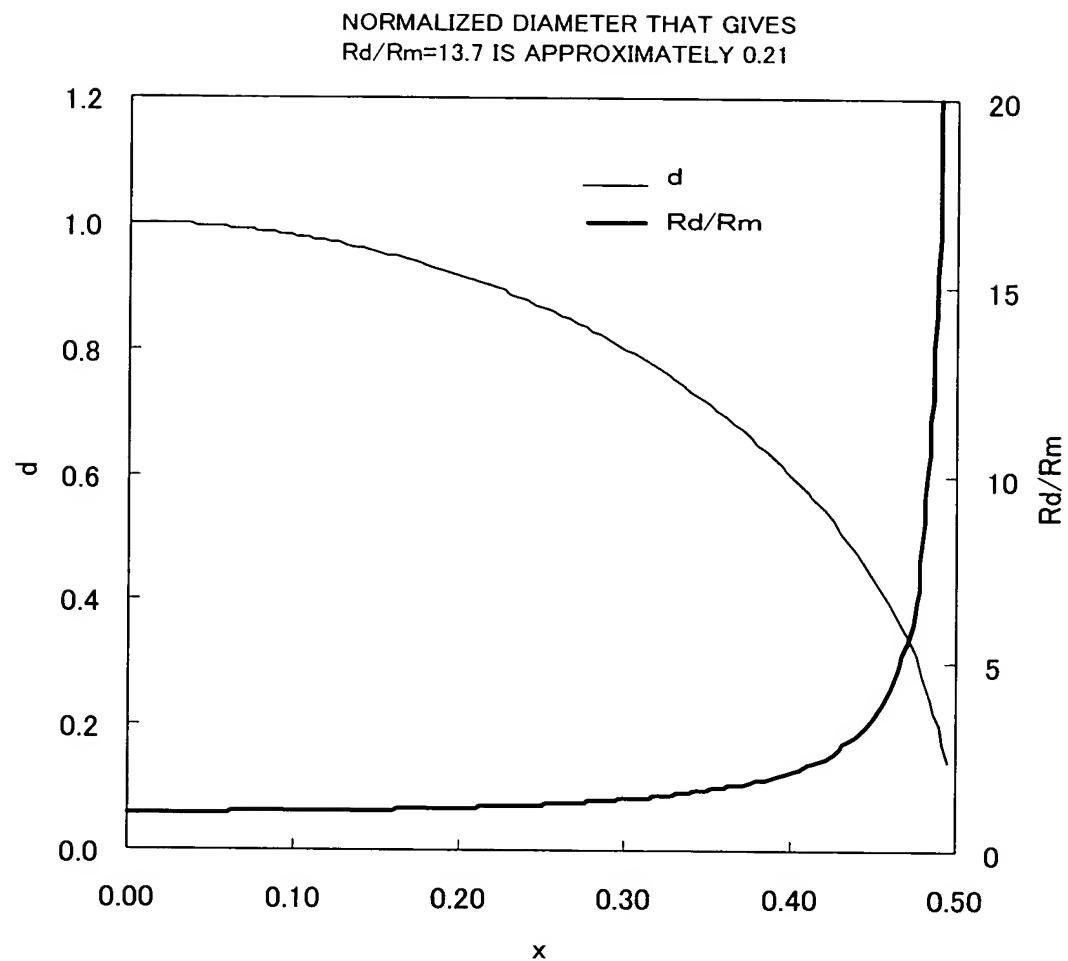


FIG. 15

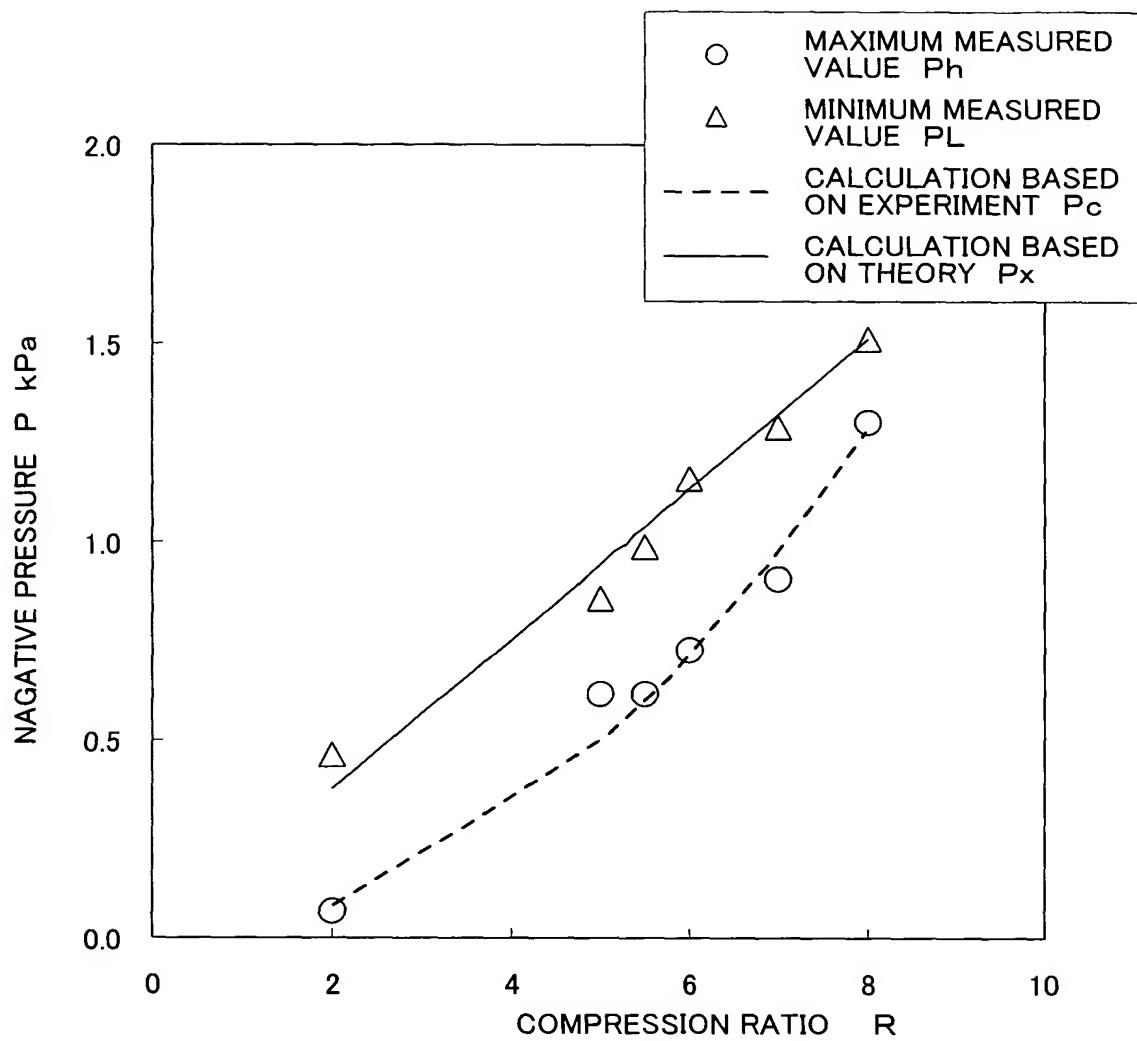
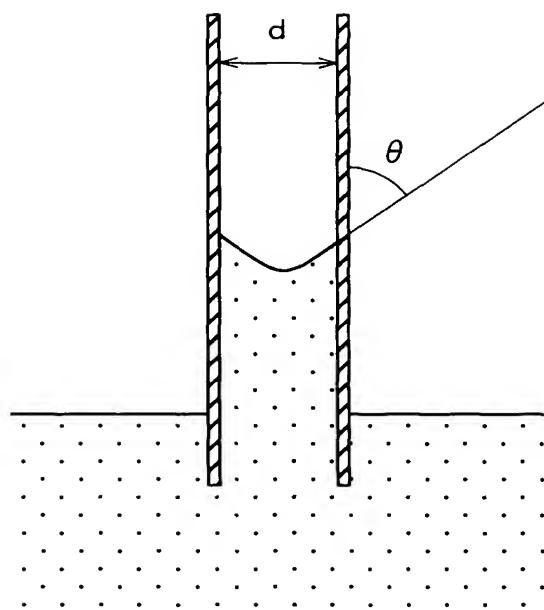
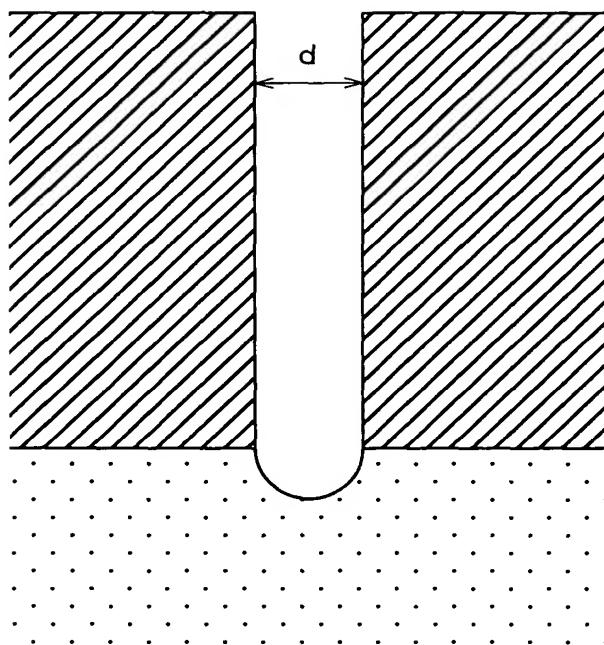


FIG. 16



$$\Delta P = 4T \cos \theta / d$$

FIG. 17



$$P_c = 4T/d$$

FIG. 18 (a)

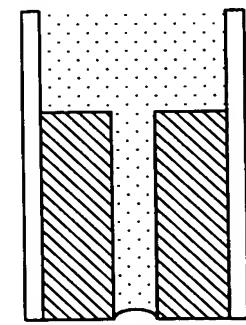


FIG. 18 (e)

AMOUNT OF RETREAT

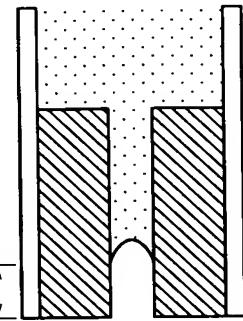


FIG. 18 (b)

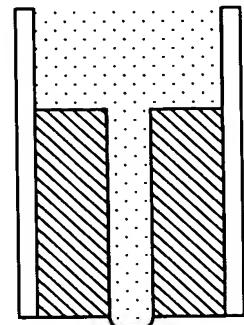


FIG. 18 (f)

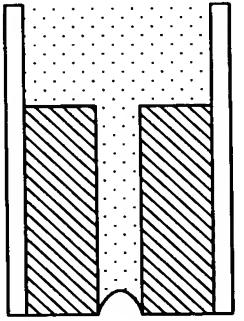


FIG. 18 (c)

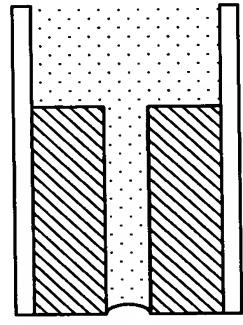


FIG. 18 (g)

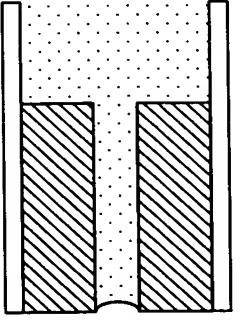


FIG. 18 (d)

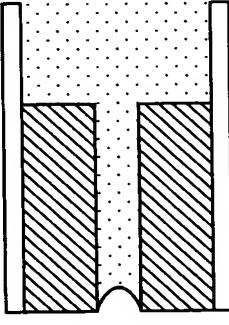


FIG. 18 (h)

